

### Remarks

Claims 1-36 are currently pending in the application. However, the Examiner issued an oral restriction requirement, and the Applicants elected Group I, Claims 1-7 and 16-33 for initial examination. Therefore, Claims 8-15 and 34-36 have been withdrawn from consideration by the Examiner.

Claims 1-7 and 16-33 were rejected under 35 USC § 112 second paragraph as being indefinite. Specifically, the Examiner objected to the term "fancy weave construction". The Examiners attention is directed to p. 1, line 16-p.2, line 7 of the specification, which describe the term "fancy weave", a term that is commonly used in the textile arts and should be readily understood by those of ordinary skill in the art. As additional evidence of this, Applicants have submitted a copy of page 207 from Joseph's Introductory Textile Science, 6<sup>th</sup> Edition, (1993), which refers to fancy weave fabrics as being known in the art.

The Examiner also objected to the term "broken filament yarns". As noted on p. 9, lines 8-10 of Applicants' specification, broken filament yarns are known by those of ordinary skill in the art, and are those that are processed so that some of the loops formed in air jet texturing are broken. Therefore, it is maintained that the term "broken filament yarns" is clearly defined as required by Section 112.

Claims 1-4, 6, and 7 were rejected under 35 USC § 102(b) as being anticipated by, or in the alternative, under 35 USC § 103(a) as obvious over U.S. Patent No. 5,495,874 to Heiman. Specifically, the Examiner said that "Heiman discloses a woven fabric comprising cotton warp yarns and continuous filament filling yarns", that "cotton yarns are inherently spun yarns" and that the "fabric would inherently have a hand for the face of the fabric which is approximately equal to the hand for the back of the fabric since the face and back of the fabric have the same structure". The Examiner acknowledges that "Heiman does not explicitly teach the limitations MIU values and SMD surface roughness" but concludes that "it is reasonable to presume that said limitations are inherent to the invention", asserting as support for this position "the use of similar materials (i.e. woven fabric with spun warp yarns and filament filling yarns) and in the

similar production steps (i.e. weaving the spun and filament yarns together) used to produce the woven fabrics". From this the Examiner concludes that "the burden is upon the Applicant to prove otherwise". In the alternative, the Examiner concluded that the claimed fabric would obviously have been provided by the process disclosed by Heiman.

Reconsideration and withdrawal of the rejection is requested for the following reasons.

Applicants' Claim 1 sets forth a fabric comprising a plurality of spun warp yarns interwoven with a plurality of filament filling yarns in a fancy weave construction, with the fabric having Kawabata system MIU values for each of the fabric face and back of greater than .23, and a difference in SMD surface roughness between the face and back of the fabric of less than 1.5.

There is no disclosure or suggestion in Heiman of a fancy weave fabric as set forth in Applicants' claims and described in the specification (noted previously). In fact, Heiman only discloses a 1 X 1 plain weave fabric. In addition, Heiman simply describes weaving a 1 X 1 plain weave fabric using spun cotton yarns in the warp and textured polyester filament yarns in the filling, without any additional processing to give the fabric any additional surface characteristics. Therefore, to the extent that Heiman is comparable to anything described in Applicants' disclosure, it would be the Sample A fabric, which likewise has not undergone any surface characteristic-affecting process (recognizing, however, that Heiman does not describe a fancy woven fabric).

As indicated in Applicants' Table 1, the fabric that has not undergone processing like that described in the instant invention does not have a difference in SMD surface roughness between the face and back of the fabric of less than 1.5, as set forth in Applicants' claim. Therefore Heiman fails to disclose or even suggest the claimed invention, since Heiman does not teach a fancy weave fabric or a fabric having the claimed difference in SMD surface roughness between the face and the back.

In addition, with respect to Claim 6, the Examiner stated that "the fabric is a dobby weave construction or a jacquard weave construction, which "fail[s] to

add any specific structure to the construction of the woven fabric, since the limitations *just refer to fabrics made on a dobby or jacquard loom*". (emphasis added). Therefore, this feature was given no patentable weight.

Applicants' have submitted herewith copies of page 383 and 379 of Joseph's Textile Science, 6<sup>th</sup> Edition (1993). As clearly indicated, the terms "dobby weave" and "jacquard weave" have a more significant meaning to those of ordinary skill in the textile art than proposed by the Examiner. Again, there is no disclosure or suggestion in Heiman of dobby or jacquard weave fabrics. Therefore, Heiman fails to disclose or suggest the claimed invention.

Claims 7 and 16-33 were rejected under 35 USC § 102(b) as being anticipated by or, in the alternative, under 35 USC § 103(a) as obvious over Otto (US Patent 4,512,065). The commonly-assigned patent to Otto describes a unique fabric abrasion process for providing intermittent mechanical impact of the fabric with an abrasive roll to create a multiplicity of generally short, rather thick, lamella shaped protrusions extending from the fabric surface. In contrast, the fabric of the instant invention was achieved through a hydraulic treatment process which results in a unique fabric having a consistent surface roughness between the face and back of the fabric, as evidenced by the claimed difference in SMD surface roughness between the face and the back of the fabric less than 1.5. In contrast, there is nothing in the Otto disclosure that would achieve a consistent surface roughness between the face and back of the fabric since there is nothing in Otto to provide the unique surface forming effect on both fabric surfaces. Furthermore, because the Otto patent describes an abrasion type process as opposed to a hydraulic treatment process like that of the described in the instant application, there is nothing within Otto to suggest that this would achieve the same Kawabata system MIU of greater than .23 as set forth in Applicants' claims. Therefore, it is respectfully requested that this rejection be withdrawn.

Claims 1-7 and 16-33 were rejected under 35 USC § 103(a) is obvious over Willbanks (5,080,952) in view of Otto. Specifically the Examiner stated that "Willbanks discloses a method of raising, or napping, surface fibers on textile

fabrics using high velocity fluid streams”, and the use of spun yarns in the warp direction. The Examiner acknowledges that “Willbanks fails to teach using filament yarns in the woven fabric”. However, the Examiner asserted that because the Otto patent discloses that woven fabrics comprising spun yarns and filament yarns can be treated by napping processes to produce fabrics with raised surfaces, “it would have been obvious for one having ordinary skill in the art to use the fabric with a mixture of filament yarns and spun yarns, as taught by Otto, with spun yarns in the warp direction and treated with high speed jets, as taught by Willbanks, since Willbanks teaches that using high speed jets produces fabrics with a raised surface which has improved strength in the fill yarn direction when compared to other napping processes as well as improved greater pile density and uniformity.” The Examiner acknowledges that “the limitations of MIU values, SMD surface roughness, hand, tensile strength of warp and filling yarn, and shear stiffness are not explicitly taught by Willbanks or Otto”, but stated that it is “reasonable to presume said limitations would be met by the combination by the two references”. The Examiner supports this premise by asserting “the use of similar materials (i.e spun yarns and filament yarns) and in the similar production steps (i.e. woven to form a fabric and then napping said fabric) used to produce the pile fabric”. The Examiner then states that the burden is upon the Applicant to prove otherwise.

Reconsideration and withdrawal of the rejection requested for the following reasons. The Examiner acknowledges that the Willbanks reference fails to disclose or suggest a fabric of the variety described and in particular a fabric having a fancy weave construction with filament filling yarns and the claimed Kawabata system MIU values for the fabric face and back and the SMD surface roughness difference between the face and the back of less than 1.5. Similarly, Willbanks fails to disclose the invention as set forth in Claim 16, which describes a napped fancy woven fabric having filament yarns in the filling and a surface hand of the face that is approximately equal to the surface hand of the back of the fabric. It is noted that both the Otto and Willbanks patents are assigned to the assignee of the instant application. In addition, the Otto patent

published in 1985, well before the 1990 filing of the Willbanks patent. The rejection presumes that because fabrics having filament yarns in the filling are known and hydraulic treatment processes were known that the instant invention is therefore obvious. The Applicants respectfully disagree.

As noted, the Applicants have been familiar with hydraulic treatment processes in textile structure for a number of years. However, Applicants surprisingly found that through the combination of a unique fabric construction (i.e. one having filament yarn in the filling and a unique treatment process (i.e. a hydraulic napping process), fancy weave fabrics having characteristics on both the fabric face and back which are substantially equivalent could be achieved. As will be appreciated by those of ordinary skill in the art, this was surprising in that fancy weave fabrics typically have distinct characteristics on the face of the fabric relative to the back since yarns from the weft or the filling predominate in different areas in order to form the pattern. Therefore, it is well known that in fancy weave fabrics a difference can typically readily be felt between the fabric face and fabric back. Abrasion processing methods such as those described in Otto, would not alone achieve fabrics like those of the instant invention since abrasion of a fancy weave fabric, even when performed on both fabric face and back, would still result in fabrics having distinct hand characteristics on the face relative to the back. Therefore, Applicants' unique combination of characteristics has resulted in a fabric which has a visual weave pattern, even when the fabric is produced with a consistent color across the fabric surface, while having approximately the same hand characteristics on the face relative to the back. In this way the fabric can be used to produce items such as napery articles where a person simply feeling the fabric would not feel the pattern although it is readily visible. In support of the nonobviousness of this combination of features is the fact that Applicants themselves have been active in this field for a number of years and themselves did not achieve this unique fabric until the instant invention. There is no motivation in either Willbanks or Otto to combine the teachings of these two references absent the disclosure set forth in present application. Therefore it is respectfully requested that the rejection be withdrawn.